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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/618,519

07/11/2003

James Owen

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EXAMINER

SETLAK, ANDREW T

ART UNIT

PAPER NUMBER

2166

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,519

Applicant(s)

OWEN ET AL.

Examiner

Andrew Setlak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date 3/31/04 - 3/16/05.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-50 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-50 appear to represent nonfunctional descriptive material. Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data. When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored in a computer-readable medium, in a computer, on an electromagnetic carrier signal does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because

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"[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer."). Such a result would exalt form over substance. See also *In re Johnson*, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978) ("form of the claim is often an exercise in drafting"). Thus, nonstatutory music is not a computer component and it does not become statutory by merely recording it on a compact disk. Protection for this type of work is provided under the copyright law.

Claims 17-24 & 28-50 are further rejected under 35 U.S.C 101 because the claimed invention is directed to the non-statutory subject area of electro-magnetic signals. Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. *O'Reilly*, 56 U.S. (15 How.) at 112-14. Moreover, a claim reciting a signal encoded with functional descriptive material does not fall within any of the categories of patentable subject matter set forth in § 101. First, a claimed signal is clearly not a "process" under § 101 because it is not a series of steps. The other three § 101 classes of machine, compositions of matter and manufactures "relate to structural entities and can be grouped as 'product' claims in order to contrast them with process claims." 1 D. Chisum, *Patents* § 1.02 (1994). The three product classes have traditionally required physical structure or material. "The term machine includes every mechanical device or combination of mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result." *Corning v. Burden*, 56 U.S. (15 How.) 252, 267 (1854). A modern definition of machine would no doubt include

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electronic devices which perform functions. Indeed, devices such as flip-flops and computers are referred to in computer science as sequential machines. A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine. A "composition of matter" "covers all compositions of two or more substances and includes all composite articles, whether they be results of chemical union, or of mechanical mixture, or whether they be gases, fluids, powders or solids." *Shell Development Co. v. Watson*, 149 F. Supp. 279, 280, 113 USPQ 265, 266 (D.D.C. 1957), *aff'd*, 252 F.2d 861, 116 USPQ 428 (D.C. Cir. 1958). A claimed signal is not matter, but a form of energy, and therefore is not a composition of matter. The Supreme Court has read the term "manufacture" in accordance with its dictionary definition to mean "the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery." *Diamond v. Chakrabarty*, 447 U.S. 303, 308, 206 USPQ 193, 196-97 (1980) (quoting *American Fruit Growers, Inc. v. Brogdex Co.*, 283 U.S. 1, 11, 8 USPQ 131, 133 (1931), which, in turn, quotes the Century Dictionary). Other courts have applied similar definitions. See *American Disappearing Bed Co. v. Arnaelsteen*, 182 F. 324, 325 (9th Cir. 1910), *cert. denied*, 220 U.S. 622 (1911). These definitions require physical substance, which a claimed signal does not have. Congress can be presumed to be aware of an administrative or judicial interpretation of a statute and to adopt that interpretation when it re-enacts a statute without change. *Lorillard v. Pons*, 434 U.S. 575, 580 (1978). Thus, Congress must be presumed to have been aware of the

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interpretation of manufacture in American Fruit Growers when it passed the 1952 Patent Act. A manufacture is also defined as the residual class of product. 1 Chisum, § 1.02[3] (citing W. Robinson, The Law of Patents for Useful Inventions 270 (1890)). A product is a tangible physical article or object, some form of matter, which a signal is not. That the other two product classes, machine and composition of matter, require physical matter is evidence that a manufacture was also intended to require physical matter. A signal, a form of energy, does not fall within either of the two definitions of manufacture. Thus, a signal does not fall within one of the four statutory classes of § 101.

In addition Claims 9-16 appear to be directed towards a broader scope than would be allowed under 35 U.S.C 101. The applicant clearly defines a computer storage medium within the specification in ¶52 however the applicant then claims a computer readable medium which has not been defined within the specification and thus could be interpreted to include the non-statutory area of electro-magnetic signals.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-24 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-16 & 28-35 of copending Application No. 10/618,380. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art at the time of invention to have progressed from a single instance of a data field to a plurality of data fields.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 25-50 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 37-48 of copending Application No. 10/618,380. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art at the time of invention to have progressed from a single instance of a data field to a plurality of data fields. Further claims 38-50 of the instant application are drawn to a computer data signal where as claims 37-48 of the copending application are drawn to a memory, however this too would have been an obvious modification to one of ordinary skill in the art at the time of invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-50 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,325,594 (henceforth referred to as Van Huben).

Claim 1 is anticipated by Van Huben as follows: **A memory for storing data for access by an application program being executed on a computer system, comprising: a data structure stored in said memory, the data structure including or referring to: a name (figure 3B; C11:L13-34; figure 11B; C23:L41-51); a content repository identifier (C14:L15-18); a property (figure 3B; C10:L39-56); a property definition (figure 3B; C10:L39-56); and wherein the data structure is logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository (C14:L9-30).**

Claim 2 is anticipated by Van Huben as in claim 1, **wherein the content repository identifier comprises: a repository name (C14:L30-40); and a content identifier that is unique for the content repository (C14:L15-20).**

Claim 3 is anticipated by Van Huben as in claim 1, **further comprising: a reference to a parent data structure** (figure 4A; C11:L1-12).

Claim 4 is anticipated by Van Huben as in claim 1, **wherein: a property is an association between a name and at least one value** (C10:L39-56; C17:L5-13); **and wherein the at least one value can be stored in one of the at least one content repositories** (C10:L39-56; C17:L5-13).

Claim 5 is anticipated by Van Huben as in claim 4, **wherein: the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data** (C10:L39-56; being a computer implemented data array the data contained within *must* be represented as binary data).

Claim 6 is anticipated by Van Huben as in claim 1, **wherein: the property definition can specify at least one of the following for the property: property choices; a reference; a data type; whether the property is mandatory; whether the property is multi-valued; whether the property is primary; whether the property is read-only; and whether the property is restricted** (C10:L54-55).

Claim 7 is anticipated by Van Huben as in claim 1, **wherein: the data structure is hierarchically related to other data structures and the at least one content repository** (figure 4A; C11:L1-12).

Claim 8 is anticipated by Van Huben as in claim 7, **wherein: the data structure is hierarchically inferior to the at least one content repository** (figure 4A; C11:L1-12).

Claims 9-16 & 17-24 are anticipated by Van Huben using the same rationale as applied to the rejections of claims 1-8.

Claim 25 is anticipated by Van Huben as follows: **A memory for storing data for access by an application program being executed on a computer system, comprising: a first object to provide a first group of services related to interacting with a hierarchical namespace (figure 2, element 24; C13:L47-49); a second object to provide a second group of services related to associating information with the first object (figure 2, elements 23 & 24; C13:L34-43); a third object to provide a third group of services related to describing attributes of the second object (figure 2, elements 22 & 23; C13:L17-30); wherein the first object is logically part of a virtual content repository (VCR), and wherein the VCR represents at least one content repository (figure 2, element 21; C12:L24-33).**

Claim 26 is anticipated by Van Huben as in claim 25, **wherein the first group of services comprises: first functions that enable associating the first object with a location in the namespace (C12:L66-C13:L16; C13:L47-54).**

Claim 27 is anticipated by Van Huben as in claim 25, **wherein the second group of services comprises: second functions that enable creating, reading, updating and deleting the information (C13:L47-53).**

Claim 28 is anticipated by Van Huben as in claim 25, **wherein the third group of services comprises: third functions that enable specifying at least one of the following for the second object: information choices; a reference; an information type; whether the information is mandatory; whether the information is multi-**

valued; whether the information is primary; whether the information is read-only; and whether the information is restricted (C13:L17-22).

Claim 29 is anticipated by Van Huben as in claim 25, **further comprising: a fourth object to specify a location of the first object in the namespace (C14:L9-18).**

Claim 30 is anticipated by Van Huben as in claim 29, **wherein the fourth object includes: a content repository name (C14:L9-18); and a content identifier that is unique for the content repository (C14:L9-18).**

Claim 31 is anticipated by Van Huben as in claim 25, **wherein the first object includes: a reference to a parent object (C11:L1-12).**

Claim 32 is anticipated by Van Huben as in claim 25, **further comprising: a fifth object to provide a fifth set of services related to searching the VCR (figure 2, element 20; C11:L45-49).**

Claim 33 is anticipated by Van Huben as in claim 25, **wherein: the second object associates a name and at least one value (C14:L15-18); and wherein the at least one value can be stored in one of the at least one content repository (C13:L44-53).**

Claim 34 is anticipated by Van Huben as in claim 33, **wherein: the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data (C14:L40-48).**

Claim 35 is anticipated by Van Huben as in claim 25, **wherein: the first object is hierarchically related to other objects and the at least one content repository (C11:L1-12; C13:L44-46).**

Claim 36 is anticipated by Van Huben as in claim 25, **wherein: there is no second object** (figure 2, element 21; by stating that there is no second object the applicant is also removing the functionality of the third object, thus the whole system seems be represented as one object).

Claim 37 is anticipated by Van Huben as in claim 25, **further comprising: a sixth object to provide a sixth group of services related to configuring the VCR** (figure 2, element 20; C11:L45-49).

Claims 38-50 are anticipated by Van Huben using the same rationale as applied to the rejections of claims 25-37.

Information Disclosure Statement

Applicants' Information Disclosure Statements, filed on 3/16/05, 2/17/05, 1/3/05, 10/19/04, 9/7/04 & 3/31/04 have been received, entered into the record, and considered. See attached PTO-1449 forms.

Conclusion

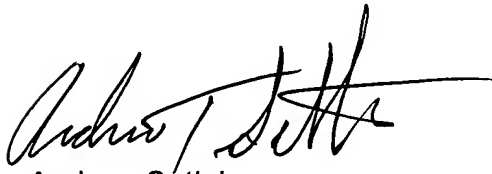
The prior art made record of on form PTO-892 and not relied upon is considered pertinent to the applicants' disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Setlak whose telephone number is (571) 272-4060. The examiner can normally be reached on M-F 10:00-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Andrew Setlak
Patent Examiner
2/24/2006



Leslie Wong
Primary Patent Examiner